

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-29 are pending in the present application with Claims 1, 12, 20 and 26 having been amended by the present amendment.

In the outstanding Office Action, Claims 13, 14 and 16-19 were objected to; Claims 12, 14-17 and 19 were rejected under 35 U.S.C. § 112, first paragraph; Claims 1, 3, 10, 12, 18, 20, 23, 26 and 28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Applicants' prior art (APA) in view of Aoki; Claims 2, 8, 13, 17, 21 and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Aoki and Suzuki; Claims 2, 8, 13, 17, 21 and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Aoki and Ohtake et al; Claims 2, 8, 13, 17, 21 and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Aoki and Fassel et al; Claims 2, 8, 13, 17, 21 and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Aoki, Suzuki and Fassel et al; and Claims 6 and 16 were rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Aoki, Ohtake et al and Fassel et al.

Regarding the objection to Claims 13, 14 and 16-19, the outstanding Office Action indicates the means language recited in the claims should be changed. However, Applicants note the means elements recited in the claims are drafted according to means-plus-function terminology and are to be interpreted under 35 U.S.C. § 112, sixth paragraph. In more detail, as noted in the sixth paragraph of 35 U.S.C. § 112, "an element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claims shall be construed to cover the corresponding structure, material or acts described in the specification as equivalents thereof." Accordingly, it is respectfully requested this objection be withdrawn.

Similar arguments apply to the rejection of Claims 12, 14-17 and 19 under 35 U.S.C. § 112, first paragraph. In particular, the outstanding Office Action indicates it is not clear what the means elements are. As noted above, these elements shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. The previous response filed November 19, 2002 provided several examples regarding the "means for suppressing noise" etc. recited in the claims. Accordingly, it is respectfully requested this rejection be withdrawn.

Claims 1, 3, 10, 12, 18, 20, 23, 26 and 28 stand rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Aoki. This rejection is respectfully traversed.

Arguments will first be presented distinguishing independent Claims 1, 12, 20 and 26 over the applied art and then arguments will be presented distinguishing independent Claims 10, 18, and 28 over the applied art.

Independent Claim 1 has been amended to recite that the contact electrode part of the commutator is directly formed on one surface of the electrical parts mounting base board. Independent Claims 12, 20 and 26 have been amended in a similar fashion.

In a non-limiting example, Figures 1 and 2 illustrate the contact electrode part 23a being directly formed on one surface of the electric parts mounting base board 23.

The outstanding Office Action indicates Aoki teaches a printed resistor board 14 having a contact electrode part 12 with a plane conductive part 13 formed on one surface of the printed resistor board 14. However, as shown in Figure 11, the element 12 is an insulating plate (see column 6, line 26) and is not a contact electrode part. Further, the conductive part 13 is not formed directly on the circuit board 14. Thus, the length of the rotary appliance in Figure 11 of Aoki is lengthened due to the insulating part 12. On the contrary, the contact electrode part 23a of the present invention is directly formed on the

printed circuit board 23, and thus has a shorter length because there is no insulating board provided therebetween.

Accordingly, it is respectfully submitted independent Claims 1, 12, 20 and 26, and each of the claims depending therefrom, are allowable.

Turning now to the arguments distinguishing independent Claims 10, 18, and 28 over the applied art. Note these arguments are similar to the arguments presented in the previously filed response.

The present invention as recited in Claim 10 is directed to a direct current motor in which respective sliding contact positions of the electrode brushes with the contact electrode part are shifted in the radial direction. Claims 18 and 28 include similar features.

In a non-limiting example, Figures 14 and 15 illustrate an electrode brush having separate portions 16Aa and 16Ab of the first electrode brush 16A and separate portions 16Ba and 16Bb of the second electrode brush 16B, and thus an electrode brush 30 includes separate portions 30a and 30b. As illustrated in Figure 15, each rotation angle position of the sliding contact of the separate portions 30a and 30b is somewhat shifted relative to the contact electrode part 23a (see page 23, lines 2-7). The outstanding Office Action does not specifically address these arguments provided in the previous response. However, it is respectfully submitted Aoki do not teach or suggest these features (see Figure 12, for example, in which the portions of the electrode brush are not shifted relative to the contact electrode part).

Accordingly, it is respectfully submitted independent Claims 10, 18 and 28, and each of the claims depending therefrom, are also allowable.

Regarding the other rejections noted in the outstanding Office Action, it is respectfully noted that each of these rejections reject dependent claims using additional publications. It is respectfully noted that each of these additional publications also do not

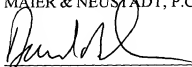
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teach or suggest the features recited in the independent claims. Accordingly, it is respectfully submitted these rejections have also been overcome.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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